

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
MATERIALS CONTROL, SOILS AND TESTING DIVISION

MATERIALS PROCEDURE

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ACCEPTANCE CRITERIA FOR EPOXY COATED REINFORCING STEEL

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- 1.0 PURPOSE
- 1.1 To establish a procedure for the acceptance of epoxy coated steel. To set forth conditions for approval of epoxy coaters, and to establish inspection and shipping procedures.
- 2.0 SCOPE
- 2.1 This procedure shall apply to epoxy coated steel furnished to West Virginia Division of Highways (WVDOH) projects and purchase orders. The Division may elect to use other control procedures when special conditions dictate.
- 3.0 APPLICABLE DOCUMENTS
- 3.1 WVDOH Standard Specifications for Roads and Bridges, Section 709.01.
- 3.2 WVDOH Materials Procedure 709.01.50
- 3.3 AASHTO M284
- 4.0 GENERAL REQUIREMENTS
- 4.1 Prior to coating, reinforcing steel shall meet the requirements of Section 709.1 of the WVDOH Standard Specifications for Roads and Bridges.
- 4.2 The epoxy powder shall meet the requirements of AASHTO M284. The epoxy powder shall be approved by the Division prior to coating.

- 4.3 The patching material shall meet the requirements of AASHTO M284 of the WVDOH Standard Specifications for Roads and Bridges. The patching material shall be compatible with the epoxy coating and shall be furnished by coater with each shipment.
- 5.0 ACCEPTANCE PROCEDURES - APPROVED SOURCE AND NON-APPROVED SOURCE
- 5.1 Approved Source
- 5.1.1 Prerequisites for qualification as an "Approved Source" are as follows:
- 5.1.1.1 A letter requesting approval consideration shall be submitted by the coater to the Materials Control, Soils and Testing Division.
- 5.1.1.2 The prospective source shall have an acceptable historical record of compliance with the WVDOH Specifications.
- 5.1.1.3 The prospective source shall have been certified by the Concrete Reinforcing Steel Institute's (CRSI) Certification Program for epoxy coating plants. Evidence of CRSI Certification shall be submitted with the initial letter of request and each time the CRSI Certification is renewed.
- 5.1.1.4 The prospective source shall submit a certified statement that all material shipped to the Division will conform to the Specification. The certified statement shall be signed by a representative of the coater who has the authority to bind the company.
- 5.1.1.5 The Materials Control, Soils and Testing Division will issue an approved source number to coating facilities that meets the above criteria. This approval number shall be affixed to the shipping documents that accompany each order to West Virginia projects. The status of all approved epoxy coaters shall be re-evaluated on an annual basis.

- 5.1.2 The Materials Control, Soils and Testing Division or its representative will take random samples from WVDOH projects or from the coater's facility to assure Specification compliance at a minimum rate of one sample per year per active coater.
- 5.1.3 Revocation of approved source status may result from any of the following:
  - 5.1.3.1 Revocation or expiration of CRSI Certification.
  - 5.1.3.2 Furnishing material that does not comply with Specifications.
  - 5.1.3.3 Inactivity concerning supplying epoxy coated bars to West Virginia projects for more than two years.
  - 5.1.3.4 "Approved Source" status may be reinstated at the discretion of the Materials Control, Soils and Testing Division based on the findings of an investigation. The reinstatement process will commence upon the receipt of a letter of request from the manufacturer. The letter of request should indicate reasons for reinstatement and documentation to substantiate such reasons.
- 5.2 Non-Approved Source
  - 5.2.1 Epoxy coated steel bars that have been coated by a non- approved coater shall be subject to sampling in accordance to AASHTO M284. Sampling will be conducted by a representative of the WVDOH.
    - 5.2.1.1 Samples shall be tested in accordance to AASHTO M284 by a Division approved laboratory at the expense of the coater and/or the supplier. The Materials Control, Soils and Testing Division considers laboratories to be approved if documentation can be submitted attesting compliance to CRSI protocol.

- 5.2.1.2 Prior to the sampling, the coater shall submit a bar list and certified mill test data on the steel contained in the shipment. Tests for film thickness, continuity of coating, and adhesion shall be conducted. Additionally, certified test data on the epoxy powder and the test data that was collected during the coating process shall be submitted.
- 5.2.1.3 If the results of the testing reveal that the material is in full compliance with Specifications, an approval number will be issued by the Division that shall be affixed to the shipping documents.
- 5.2.1.4 If the results of the testing reveal that the material is not in compliance with Specifications, the LOT shall be rejected in accordance with the provisions of Section 13 of AASHTO M284.
- 6.0 DOCUMENTATION PROCEDURES
- 6.1 Procedures for the shipment of materials that have successfully passed evaluation or that originate from an "Approved Source" are as follows:
- 6.1.1 With each shipment, the coater shall provide shipping documents which contain either the coater's "Approved Source" number or the approval number that was assigned to the material as per Section 5.2.1.3.
- 6.1.2 The coater shall complete Attachment 1, which shall accompany the shipment to the project.
- 6.1.3 Upon receipt of epoxy coated steel, materials approval will be obtained by referencing the approval number assigned to that particular source or assigned to that specific shipment on Form 440.

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Gary L. Robson, Director  
Materials Control, Soils  
and Testing Division





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3RD REVISION: DECEMBER 1994  
ATTACHMENT 1  
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QUANTITY OF REBAR (CONTINUED):

SIZE: \_\_\_\_\_ KILOGRAMS: \_\_\_\_\_ METERS: \_\_\_\_\_

|       |       |       |
|-------|-------|-------|
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |

TOTALS: \_\_\_\_\_

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IF SHIPPED TO FABRICATOR, NAME: \_\_\_\_\_

SHIPPED BY: \_\_\_\_\_ DATE SHIPPED: \_\_\_\_\_

SIGNED: \_\_\_\_\_ DATE: \_\_\_\_\_